

IN THE CLAIMS:

Please cancel claims 1-37 without prejudice. Please add new claims 38-76.

1-37 (canceled)

38. (new) A composition comprising: (a) a polymeric bone-cement component in the form of particles, and (b) an anti-resorptive agent in the form of particles, wherein the anti-resorptive agent's particle-size distribution is about the same as the polymeric bone-cement component's particle-size distribution.

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39. (new) The composition of claim 38, wherein the anti-resorptive agent is a bisphosphonate or a pharmaceutically acceptable salt or ester thereof.

40. (new) The composition of claim 38, wherein the anti-resorptive agent is pamidronate or a pharmaceutically acceptable salt or ester thereof.

41. (new) The composition of claim 38, wherein the anti-resorptive agent is etidronate or a pharmaceutically acceptable salt or ester thereof.

42. (new) The composition of claim 38, wherein the anti-resorptive agent is alendronate or a pharmaceutically acceptable salt or ester thereof.

43. (new) The composition of claim 38, wherein the anti-resorptive agent is zoledronate or a pharmaceutically acceptable salt or ester thereof.

44. (new) The composition of claim 38, wherein the anti-resorptive agent is gallium fluoride.

45. (new) The composition of claim 38, wherein the anti-resorptive agent is a cholesterol-lowering agent.

46. (new) The composition of claim 38, wherein the anti-resorptive agent is an estrogen-bisphosphonate conjugate.

47. (new) The composition of claim 38, wherein the bone-cement is an acrylic bone-cement or a hydroxyapatite bone-cement.

48. (new) The composition of claim 38, wherein the bone-cement is polymethylmethacrylate and the anti-resorptive agent is pamidronate or a pharmaceutically acceptable salt or ester thereof.

49. (new) The composition of claim 38, wherein the bone-cement is polymethylmethacrylate and the anti-resorptive agent is zoledronate, zoledronic acid, or a pharmaceutically acceptable salt or ester thereof.

50. (new) The composition of claim 38, wherein 65 to about 70 percent of the particles have an average diameter of about 25 microns.

51. (new) The composition of claim 38, wherein 30 to about 35 percent of the particles are about 13 to about 17 microns in diameter.

52. (new) The composition of claim 38, wherein the anti-resorptive agent is present on the bone-cement's surface.

53. (new) The composition of claim 38, wherein the anti-resorptive agent is impregnated in the bone-cement.

54. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) an anti-resorptive amount of an anti-resorptive agent wherein the anti-resorptive agent is present in an amount that does not compromise the cement's chemical or mechanical properties.

55. (new) The composition of claim 54, wherein the amount of the anti-resorptive agent is about 0.067 grams to about 6.67 grams per 40 grams of bone cement.

56. (new) The composition of claim 54, wherein the cement is an organic cement and the anti-resorptive agent is pamidronate in an amount from about 3% to 3.5% by weight of the composition.

57. (new) The composition of claim 54, wherein the amount of the anti-resorptive agent is about 0.67 micrograms to about 3.33 milligrams per 40 grams of bone-cement.

58. (new) The composition of claim 54, wherein the amount of the anti-resorptive agent is about 1.34 micrograms to about 0.2 milligrams per 40 grams of bone-cement.

59. (new) The composition of claim 54, wherein the anti-resorptive agent is a bisphosphonate or a pharmaceutically acceptable salt or ester thereof.

60. (new) The composition of claim 54, wherein the anti-resorptive agent is pamidronate or a pharmaceutically acceptable salt or ester thereof.

61. (new) The composition of claim 54, wherein the anti-resorptive agent is etidronate or a pharmaceutically acceptable salt or ester thereof.

62. (new) The composition of claim 54, wherein the anti-resorptive agent is alendronate or a pharmaceutically acceptable salt or ester thereof.

63. (new) The composition of claim 54, wherein the anti-resorptive agent is zoledronate or a pharmaceutically acceptable salt or ester thereof.

64. (new) The composition of claim 54, wherein the anti-resorptive agent is gallium fluoride.

65. (new) The composition of claim 54, wherein the anti-resorptive agent is a cholesterol-lowering agent.

66. (new) The composition of claim 54, wherein the anti-resorptive agent is an estrogen-bisphosphonate conjugate.

67. (new) The composition of claim 54, wherein the bone-cement is an acrylic bone-cement or a hydroxyapatite bone-cement.

68. (new) The composition of claim 54, wherein the bone-cement is polymethylmethacrylate and the anti-resorptive agent is pamidronate or a pharmaceutically acceptable salt or ester thereof.

69. (new) The composition of claim 54, wherein the bone-cement is polymethylmethacrylate and the anti-resorptive agent is zoledronate, zoledronic acid, or a pharmaceutically acceptable salt or ester thereof.

70. (new) The composition of claim 54, wherein the anti-resorptive agent is present in an amount that is not toxic.

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cont
71. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) an anti-resorptive agent selected from the group consisting of a salt of a Group IIIA element, a cholesterol lowering agent, a chemotherapeutic agent-bisphosphonate conjugate, and an estrogen-bisphosphonate conjugate.

72. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) a mixture comprising an acrylate monomer and a copolymer wherein the copolymer comprises (A) an acrylate or methyl methacrylate monomer and (B) an acrylonitrile, butadiene, styrene, vinyl chloride, vinylidene chloride, or vinyl acetate monomer; (2) an inorganic cement; and (3) a composite cement; and (b) an anti-resorptive amount of an anti-resorptive agent selected from the group consisting of a salt of a Group IIIA element; a cholesterol lowering agent; an estrogen-bisphosphonate conjugate; and a bisphosphonate wherein the bisphosphonate is selected from the group consisting of pamidronate; alendronate; risedronate; ibandronate; zoledronate; olpadronate; icandronate; neridronate (6-amino-1-hydroxyethylidene-1,1-bisphosphonate); dichloromethane bisphosphonic acid; 3-amino-1-hydroxypropane-1,1-bisphosphonic acid; 6-amino-1-hydroxyhexane-1,1-bisphosphonic acid; 4-amino-1-hydroxybutane-1,1-bisphosphonic acid; 2-(3-pyridyl)-1-hydroxyethane-1,1-bisphosphonic acid; 2-(N-imidazolyl)-1-hydroxyethane-1,1-bisphosphonic acid; 3-(N-pentyl-N-methylamino)-1-hydroxypropane-1,1-bisphosphonic acid; 3-(N-pyrrolidino)-1-hydroxypropane-1,1-bisphosphonic acid; N-cycloheptylamino-methanebisphosphonic acid; S-(p-chlorophenyl) thiomethane-bisphosphonic acid; 4-amino-1-hydroxybutylidene-1,1-bisphosphonic acid; (7-dihydro-1-pyridine)methane bisphosphonic acid; (7-dihydro-1-pyridine)hydroxymethane bisphosphonic acid; (6-dihydro-2-pyridine)hydroxy-methanebisphosphonic acid; 2-(6-pyrollopyridine)-1-hydroxyethane-1,1-bisphosphonic acid; and pharmaceutically acceptable salts and esters thereof.

73. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) a bisphosphonate selected from the group consisting of olpadronate; icandronate; neridronate; 6-amino-1-hydroxyhexane-1,1-bisphosphonic acid; 2-(3-pyridyl)-1-hydroxyethane-1,1-bisphosphonic acid; 2-(N-imidazolyl)-1-hydroxyethane-1,1-bisphosphonic acid; 3-(N-pentyl-N-methylamino)-1-hydroxypropane-1,1-bisphosphonic acid; 3-(N-pyrrolidino)-1-hydroxypropane-1,1-bisphosphonic acid; 4-amino-1-hydroxybutylidene-1,1-bisphosphonic acid; (7-dihydro-1-pyridine)methane bisphosphonic acid; (7-dihydro-1-pyridine)hydroxymethane bisphosphonic acid; (6-dihydro-2-pyridine)hydroxymethanebisphosphonic acid; 2-(6-pyrolopyridine)-1-hydroxyethane-1,1-bisphosphonic acid; and pharmaceutically acceptable salts and esters thereof.

74. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) a bisphosphonate selected from the group consisting of dichloromethane bisphosphonic acid; N-cycloheptylaminoethanebisphosphonic acid; and S-(p-chlorophenyl) thiomethane-bisphosphonic acid; and pharmaceutically acceptable salts and esters thereof.

75. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) a bisphosphonate selected from the group consisting of 1-hydroxyethane-1,1-bisphosphonic acid; 3-amino-1-hydroxypropane-1,1-bisphosphonic acid; 4-amino-1-hydroxybutane-1,1-bisphosphonic acid; and pharmaceutically acceptable salts and esters thereof.

76. (new) A composition comprising: (a) a bone-cement selected from the group consisting of (1) an organic cement, (2) an inorganic cement, and (3) a composite cement; and (b) a bisphosphonate selected from the group consisting of zoledronate, zoledronic acid, and pharmaceutically acceptable salts and esters thereof.